

PATENT COOPERATION TREATY

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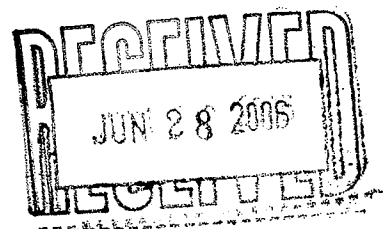
INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 1104-2PCT	FOR FURTHER ACTION		See Form PCT/IPEA/416																
International application No. PCT/US05/04811	International filing date (day/month/year) 16 February 2005 (16.02.2005)	Priority date (day/month/year) 17 February 2004 (17.02.2004)																	
International Patent Classification (IPC) or national classification and IPC IPC: A22C 29/02 (2006.01) USPC: 452/2																			
Applicant HULIN, MICHAEL J.																			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>9</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p style="margin-left: 20px;">a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>18</u> sheets, as follows:</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p style="margin-left: 20px;">b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <table style="width: 100%; margin-left: 20px;"> <tr> <td><input checked="" type="checkbox"/> Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/> Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/> Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input checked="" type="checkbox"/> Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/> Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/> Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/> Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input checked="" type="checkbox"/> Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>				<input checked="" type="checkbox"/> Box No. I	Basis of the report	<input type="checkbox"/> Box No. II	Priority	<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input checked="" type="checkbox"/> Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/> Box No. VI	Certain documents cited	<input type="checkbox"/> Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/> Box No. VIII	Certain observations on the international application
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Date of submission of the demand 10 March 2006 (10.03.2006)		Date of completion of this report 24 April 2006 (24.04.2006)																	
Name and mailing address of the IPEA/ US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201		Authorized officer Peter Poon Telephone No. (571) 272-6891																	

Form PCT/IPEA/409 (cover sheet)(April 2005)



Box No. I Basis of the report

1. With regard to the **language**, this report is based on:

- ☒ the international application in the language in which it was filed.
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4(a))
- ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ the international application as originally filed/furnished
- ☒ the description:
pages 1-21 as originally filed/furnished
pages* NONE received by this Authority on _____
pages* NONE received by this Authority on _____
- ☒ the claims:
pages NONE as originally filed/furnished
pages* NONE as amended (together with any statement) under Article 19
pages* 22-38 received by this Authority on 10 March 2006 (10.03.2006)
pages* 39 received by this Authority on 10 March 2006 (10.03.2006)
- ☒ the drawings:
pages 1-15 as originally filed/furnished
pages* NONE received by this Authority on _____
pages* NONE received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☒ the claims, Nos. 92-93
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation to restrict or pay additional fees the applicant has, within the applicable time limit:
- ☐ restricted the claims.
 - ☒ paid additional fees.
 - ☐ paid additional fees under protest, and, where applicable, the protest fee
 - ☐ paid additional fees under protest but the applicable protest fee was not paid
 - ☐ neither restricted the claims nor paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:
- ☐ complied with.
 - ☒ not complied with for the following reasons:

Please See Continuation Sheet

4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts
 - ☒ the parts relating to claims Nos. 1-51 and 73-84

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/US05/04811**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims <u>1-47 and 73-84</u>	YES
	Claims <u>48-51</u>	NO
Inventive Step (IS)	Claims <u>1-47 and 73-84</u>	YES
	Claims <u>48-51</u>	NO
Industrial Applicability (IA)	Claims <u>1-51 adn 73-84</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and Explanations (Rule 70.7)
Please See Continuation Sheet

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/US05/04811

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The drawings are objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or content thereof: the spiral platform with cylindrical chute as claimed in claim 27 is not shown in the drawing figures.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

IV. 3. This Authority considers that the requirement of unity of invention is accordance with Rules 13.1, 13.2 and 13.3 is not complied with for the following reasons:

The International Search Authority has found 8 inventions claimed in the International Application covered by the claims indicated below:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-51 and 73-84, drawn to an apparatus and system for cooking, drying and peeling shellfish products.

Group II, claim(s) 52-66 and 91, drawn to a method for processing raw seafood product.

Group III, claim(s) 67, drawn to a broth processing system.

Group IV, claim(s) 68, drawn to a food flavoring byproduct system.

Group V, claim(s) 69-70, drawn to a peeling device in communication with a dryer.

Group VI, claim(s) 71, drawn to a spiral conveyor dryer in communication with a peeling device.

Group VII, claim(s) 72, drawn to a stacked conveyor dryer in communication with a peeling device.

Group VIII claim(s) 85-90, drawn to a method for producing shellfish flavored oil.

This International Searching Authority considers that the international application does not comply with the requirements of unity of invention (Rules 13.1, 13.2, 13.3) for the reasons indicated below:

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group I has a special technical feature of an automated means for dumping shellfish product which is different than the special technical feature of the invention of Group II which is delivering raw seafood product to a heated receptacle having a brine solution therein.

The inventions listed as Groups I and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group I has a special technical feature of an automated means for dumping shellfish product which is different than the special technical feature of the

Supplemental Box

invention of Group III which is the brine solution from a seafood broiler is transported to holding tanks prior to packaging as a brine broth.

The inventions listed as Groups I and IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group I has a special technical feature of an automated means for dumping shellfish product which is different than the special technical feature of the invention of Group IV which is the brine solution is extracted from the heated receptacle and injected into a heated furnace or hopper as a fine mist where it is immediately dehydrated.

The inventions listed as Groups I and V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group I has a special technical feature of an automated means for dumping shellfish product which is different than the special technical feature of the invention of Group V which is a screen sweeper/screened aperture providing access.

The inventions listed as Groups I and VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group I has a special technical feature of an automated means for dumping shellfish product which is different than the special technical feature of the invention of Group VI which is the spiral dryer cycles the product from a low end to a high end as heated air is passed over the product before dropping the product to the low end.

The inventions listed as Groups I and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group I has a special technical feature of an automated means for dumping shellfish product which is different than the special technical feature of the invention of Group VII which is the stacked conveyor dryer moves the product from one level to another as heated air is passed over the product.

The inventions listed as Groups I and VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group I has a special technical feature of an automated means for dumping shellfish product which is different than the special technical feature of the invention of Group VIII which is extracting flavor from the pulverized byproduct into the neutral oil.

The inventions listed as Groups II and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group II has a special technical feature of delivering raw seafood product to a heated receptacle having a brine solution therein which is different than the special technical feature of the invention of Group III which is the brine solution from a seafood broiler is transported to holding tanks prior to packaging as a brine broth.

The inventions listed as Groups II and IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group II has a special technical feature of delivering raw seafood product to a heated receptacle having a brine solution therein which is different than the special technical feature of the invention of Group IV which is the brine solution is extracted from the heated receptacle and injected into a heated furnace or hopper as a fine mist where it is immediately dehydrated.

The inventions listed as Groups II and V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group II has a special technical feature of delivering raw seafood product to a heated receptacle having a brine solution therein which is different than the special technical feature of the invention of Group V which is a screen sweeper/screened aperture providing access.

The inventions listed as Groups II and VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group II has a special technical feature of delivering raw seafood product to a heated receptacle having a brine solution therein which is different than the special technical feature of the invention of Group VI which is the spiral dryer cycles the product from a low end to a high end as heated air is passed over the product before dropping the product to the low end.

The inventions listed as Groups II and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group II has a special technical feature of delivering raw seafood product to a heated receptacle having a brine solution therein which is different than the special technical feature of the invention of Group VII which is the stacked conveyor dryer moves the product from one level to another as heated air is passed over the product.

The inventions listed as Groups II and VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group II has a

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special technical feature of delivering raw seafood product to a heated receptacle having a brine solution therein which is different than the special technical feature of the invention of Group VIII which is extracting flavor from the pulverized byproduct into the neutral oil.

The inventions listed as Groups III and IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group III has a special technical feature of delivering raw seafood product to a heated receptacle having a brine solution therein which is different than the special technical feature of the invention of Group IV which is the brine solution is extracted from the heated receptacle and injected into a heated furnace or hopper as a fine mist where it is immediately dehydrated.

The inventions listed as Groups III and V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group III has a special technical feature of delivering raw seafood product to a heated receptacle having a brine solution therein which is different than the special technical feature of the invention of Group V which is a screen sweeper/screened aperture providing access.

The inventions listed as Groups III and VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group III has a special technical feature of delivering raw seafood product to a heated receptacle having a brine solution therein which is different than the special technical feature of the invention of Group VI which is the spiral dryer cycles the product from a low end to a high end as heated air is passed over the product before dropping the product to the low end.

The inventions listed as Groups III and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group III has a special technical feature of delivering raw seafood product to a heated receptacle having a brine solution therein which is different than the special technical feature of the invention of Group VII which is the stacked conveyor dryer moves the product from one level to another as heated air is passed over the product.

The inventions listed as Groups III and VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group III has a special technical feature of delivering raw seafood product to a heated receptacle having a brine solution therein which is different than the special technical feature of the invention of Group VIII which is extracting flavor from the pulverized byproduct into the neutral oil.

The inventions listed as Groups IV and V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group IV has a special technical feature of the brine solution is extracted from the heated receptacle and injected into a heated furnace or hopper as a fine mist where it is immediately dehydrated which is different than the special technical feature of the invention of Group V which is a screen sweeper/screened aperture providing access.

The inventions listed as Groups IV and VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group IV has a special technical feature of the brine solution is extracted from the heated receptacle and injected into a heated furnace or hopper as a fine mist where it is immediately dehydrated which is different than the special technical feature of the invention of Group VI which is the spiral dryer cycles the product from a low end to a high end as heated air is passed over the product before dropping the product to the low end.

The inventions listed as Groups IV and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group IV has a special technical feature of the brine solution is extracted from the heated receptacle and injected into a heated furnace or hopper as a fine mist where it is immediately dehydrated which is different than the special technical feature of the invention of Group VII which is the stacked conveyor dryer moves the product from one level to another as heated air is passed over the product.

The inventions listed as Groups IV and VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group IV has a special technical feature of the brine solution is extracted from the heated receptacle and injected into a heated furnace or hopper as a fine mist where it is immediately dehydrated which is different than the special technical feature of the invention of Group VIII which is extracting flavor from the pulverized byproduct into the neutral oil.

The inventions listed as Groups V and VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group V has a special technical feature of a screen sweeper/screened aperture providing access which is different than the special technical feature of the invention of Group VI which is the spiral dryer cycles the product from a low end to a high end as heated air is passed over the product before dropping the product to the low end.

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The inventions listed as Groups V and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group V has a special technical feature of a screen sweeper/screened aperture providing access which is different than the special technical feature of the invention of Group VII which is the stacked conveyor dryer moves the product from one level to another as heated air is passed over the product.

The inventions listed as Groups V and VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group V has a special technical feature of a screen sweeper/screened aperture providing access which is different than the special technical feature of the invention of Group VIII which is extracting flavor from the pulverized byproduct into the neutral oil.

The inventions listed as Groups VI and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group VI has a special technical feature of the spiral dryer cycles the product from a low end to a high end as heated air is passed over the product before dropping the product to the low end which is different than the special technical feature of the invention of Group VII which is the stacked conveyor dryer moves the product from one level to another as heated air is passed over the product.

The inventions listed as Groups VI and VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group VI has a special technical feature of the spiral dryer cycles the product from a low end to a high end as heated air is passed over the product before dropping the product to the low end which is different than the special technical feature of the invention of Group VIII which is extracting flavor from the pulverized byproduct into the neutral oil.

The inventions listed as Groups VII and VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the invention of Group VII has a special technical feature of the stacked conveyor dryer moves the product from one level to another as heated air is passed over the product which is different than the special technical feature of the invention of Group VIII which is extracting flavor from the pulverized byproduct into the neutral oil.

V. 2. Citations and Explanations:

Claims 48-51 lack novelty under PCT Article 33(2) as being anticipated by U.S. Patent No. 3,594,860 to Nelson et al.

Referring to claims 49-51, Nelson et al. discloses an apparatus processing shellfish comprising, a fluid filled conk tank - at 50, for separating shellfish product from packing ice, sea shells and other such large objects and an automated means - at 14-28, for transporting the crated product to the conk tank - see for example figure 1, dumping the shellfish product into the conk tank from the crate and removing the crate - at 24, therefrom - see for example figures 1-2.

Referring to claim 48, Nelson et al. discloses a dumping cage - at 28, for discharging crated seafood product into a conk tank - at 50, comprising means for receiving the crated seafood product - at 22, means for displacing the crate - at 14,18,20, whereby the crate is up-ended to discharge the contents - see figure 1, and means for receiving the crate from the receiving means - see for example 28, 20 - see figure 1.

Claims 1-47 and 73-77 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest one or more auxiliary boilers in line with the conduit for heating the brine to be desired temperature and storing it therein, wherein the brine is able to replenish used brine that has been removed from the primary seafood boiler.

Claims 78-84 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest means for using the shellfish byproduct to produce a shellfish flavored oil able to be consumed by human beings

Claims 1-51 and 73-84 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

----- NEW CITATIONS -----